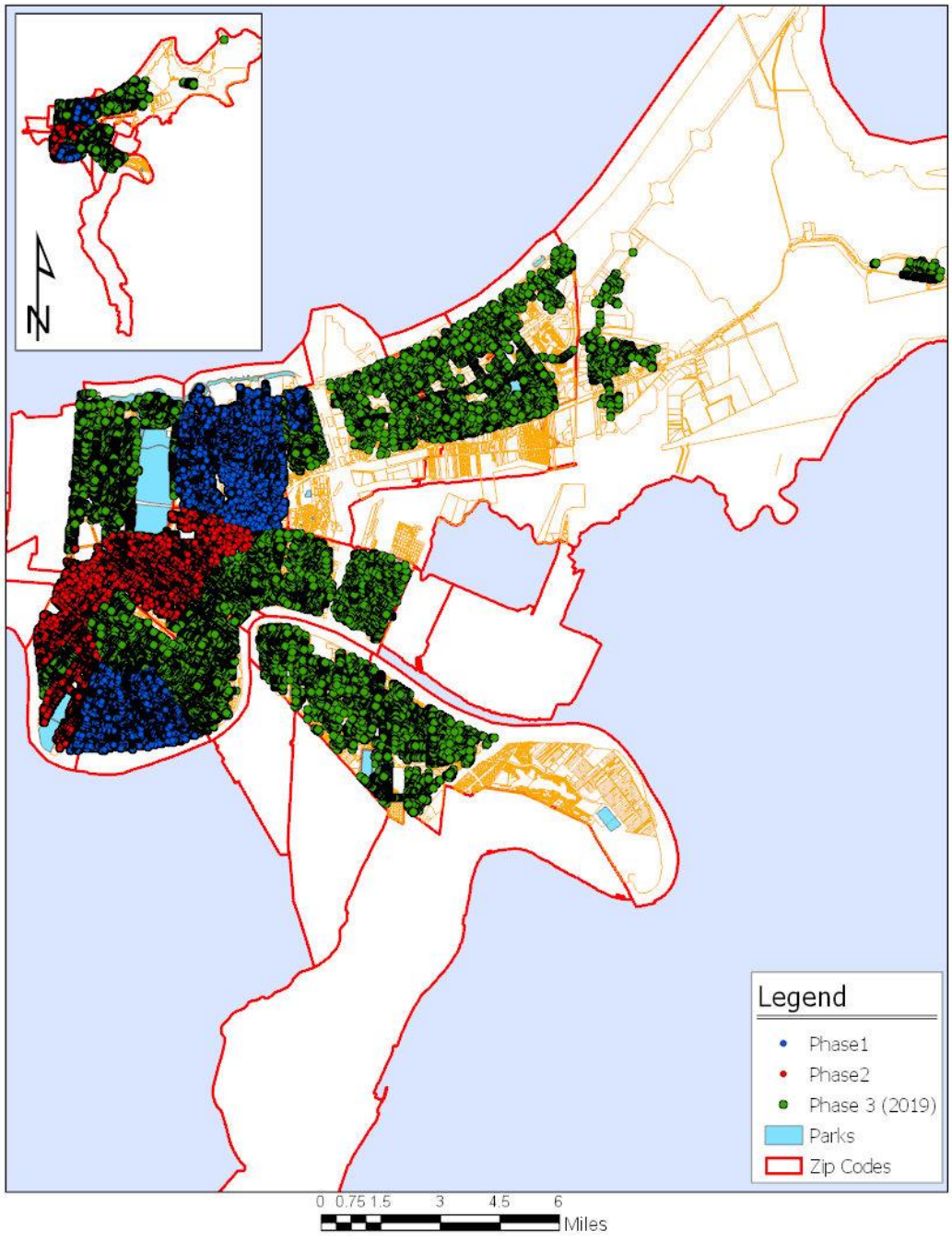
City of New Orleans
Department of Parks & Parkways

Tree Inventory Summary Report – Complete Inventory
August 20, 2019



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Prepared for the CNO Dept. of Parks & Parkways by ArborPro, Inc.

Report Summary

On January 9, 2018 ArborPro, Inc. began operations on a comprehensive GPS inventory of the trees along street rights-of-way and in public parks in the City of New Orleans. ArborPro assigned multiple ISA Certified Arborists to collect detailed information on the condition, size, species, maintenance recommendations, etc. for all Zip Codes in the City of New Orleans. This summary is a result of all data collected over the course of the inventory. This summary includes a total of **105,801 sites** comprised of 104,117 trees (98.4%) and 1,696 stumps (1.6%).

Significant Findings from the Inventory

Of the inventoried trees, 98,610 (93.2%) are located along street ROWs and 7,203 (6.8%) are in parks and open spaces. Analysis of the tree inventory found:

1. The five most common species found in New Orleans are: crape myrtle (30,244 trees: 28.6%); southern live oak (21,775 trees: 20.6%); bald cypress (5,409 trees: 5.1 %); hybrid holly (3,529 trees: 3.3%); and slash pine (3,098 trees: 2.9 %).
2. The three most common young trees (under 6" DBH) are: crape myrtle (17,980 trees); hybrid holly (2,797 trees); and southern live oak (2,293 trees).
3. The three most common mature trees (over 25" DBH) are: southern live oak (13,720 trees); bald cypress (799 trees); and crape myrtle (664 trees).
4. The inventory recorded a total of 352 distinct species of trees.
5. 91.9 % of New Orleans's tree population is in "fair" or better condition; 50.6% is in 'good' condition.
6. Trees provide approximately $6,579,939 in annual environmental benefits.
7. Breakdown of environmental benefits:
    - Energy savings: $1,312,038/year.
    - Stormwater interception: valued at $2,085,774/year.
    - Carbon sequestration: valued at $235,176/year.
    - Improved air quality: $-24,977/year.
    - Improved property value associated with aesthetics: $2,971,928.
8. Total replacement cost for all trees is $537,345,691.

Distribution of Trees by Location

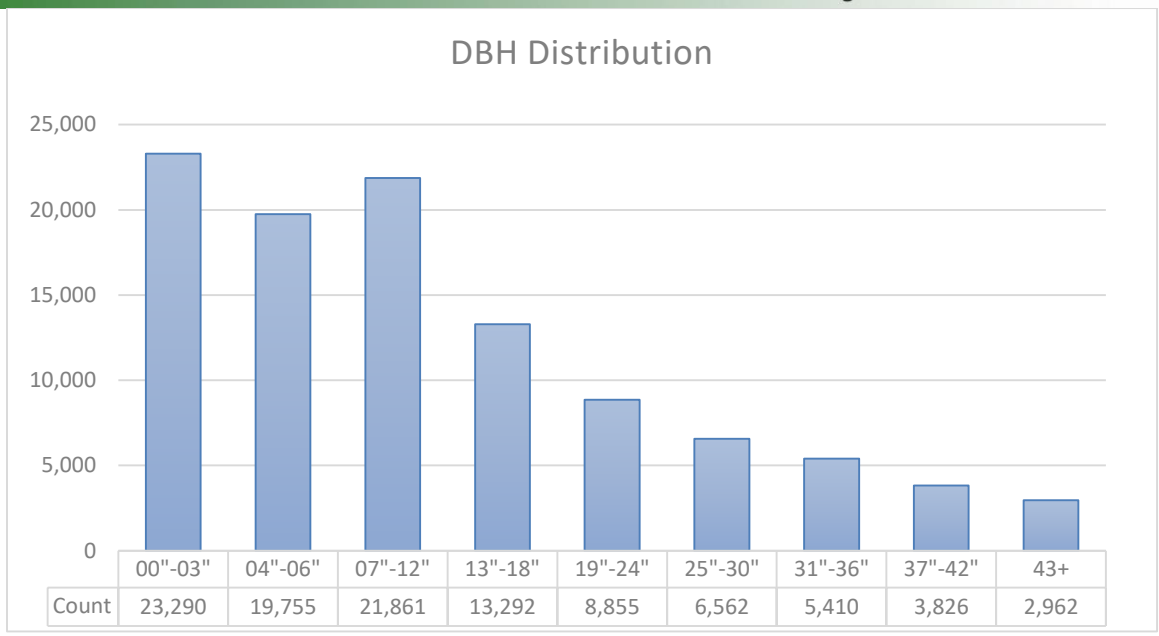
The table below provides a summary of the number of trees recorded in each zip code and location type.

Zip Code	Count	%
70112	1,956	1.8%
70113	2,142	2.0%
70114	4,476	4.2%
70115	13,757	13.0%
70116	3,956	3.7%
70117	6,716	6.3%
70118	11,214	10.6%
70119	10,772	10.2%
70122	11,369	10.7%
70124	11,545	10.9%
70125	6,022	5.7%
70126	3,843	3.6%
70127	3,881	3.7%
70128	1,914	1.8%
70129	1,489	1.4%
70130	6,030	5.7%
70131	4,731	4.5%
Total	**105,813**	

Parkway Type	Count	%
Street Easement	82,846	78.3%
Tree Pit	785	0.7%
Neutral Ground	14,979	14.2%
Street Tree Total	**98,610**	**93.2%**
Park	7,203	6.8%
Grand Total	**105,813**	

Size Characteristics

The general size of a tree provides insight into the age and value of the tree as well as the overall age of the urban forest. There are two industry-wide recognized size characteristics, height and diameter at breast height. Diameter at breast height (DBH) is determined by the diameter of the tree at 4.5 feet above grade. DBH range distribution can be used to analyze the relative age distribution of an urban forest. This allows a city to adjust their planting plans to ensure that there are enough young trees to replace aging and over-mature trees. It is important that all age classes are adequately represented throughout the urban forest to ensure a healthy, vibrant tree canopy for future generations.



Zip Code	DBH (inches)									Total
	00"-03"	04"-06"	07"-12"	13"-18"	19"-24"	25"-30"	31"-36"	37"-42"	43+	
70112	455	470	417	340	80	73	61	39	21	**1,956**
70113	719	505	391	231	100	60	59	47	30	**2,142**
70114	1,110	779	825	539	528	286	205	102	102	**4,476**
70115	1,545	2,136	3,819	2,439	1,337	868	729	516	368	**13,757**
70116	1,202	870	734	391	238	217	158	97	49	**3,956**
70117	2,329	1,511	1,185	587	345	272	249	132	106	**6,716**
70118	2,494	2,363	2,135	1,257	933	663	602	418	349	**11,214**
70119	3,209	1,924	1,936	1,082	566	459	574	569	453	**10,772**
70122	1,347	2,060	2,721	1,576	1,119	812	653	534	547	**11,369**
70124	2,900	1,933	2,349	1,448	810	702	548	400	455	**11,545**
70125	1,500	1,362	1,288	556	361	318	278	234	125	**6,022**
70126	1,114	493	428	390	502	420	286	151	59	**3,843**
70127	840	568	573	605	583	407	203	70	32	**3,881**
70128	413	303	376	255	265	155	95	35	17	**1,914**
70129	489	272	287	177	95	70	50	29	20	**1,489**
70130	1,045	1,798	1,734	788	226	127	144	97	71	**6,030**
70131	579	408	663	631	767	653	516	356	158	**4,731**
Total	**23,290**	**19,755**	**21,861**	**13,292**	**8,855**	**6,562**	**5,410**	**3,826**	**2,962**	**105,813**

Tree Condition

Good – The tree has no major structural problems; no significant damage from diseases or pests; no significant mechanical damage; a full, balanced crown, and normal twig condition and vigor for its species.

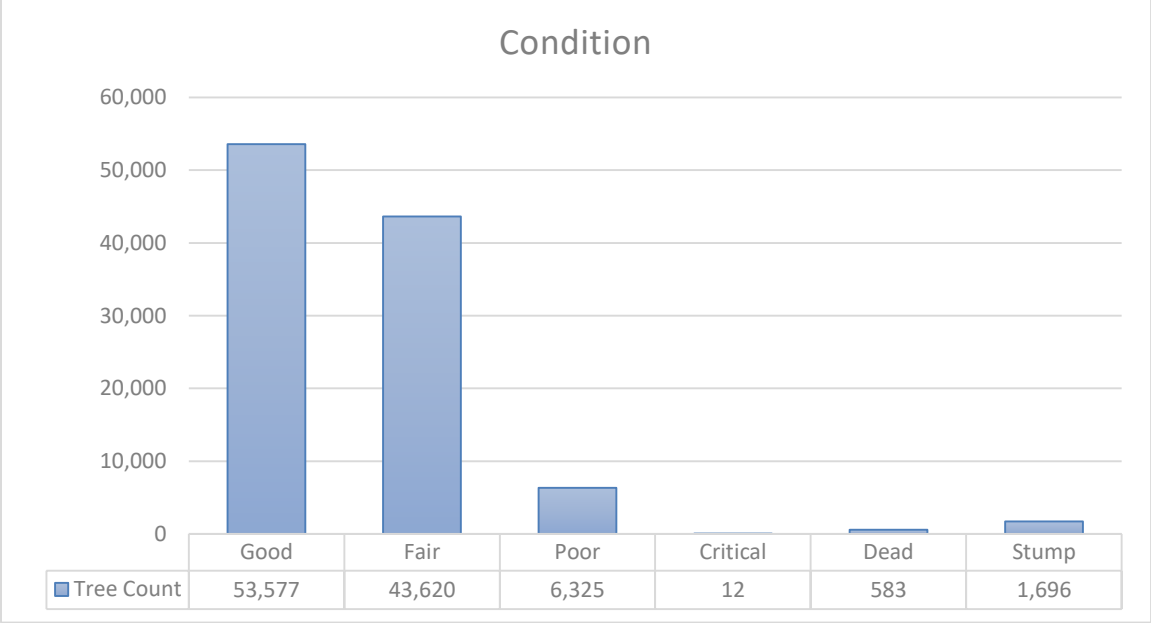
Tree Condition	Tree Count	%
Good	53,577	50.6%
Fair	43,620	41.2%
Poor	6,325	6.0%
Critical	12	0.0%
Dead	583	0.6%
Stump	1,696	1.6%
Total	**105,813**	

Fair – The tree may exhibit the following characteristics: minor structural problems and/or mechanical damage; significant damage from non-fatal or disfiguring diseases; minor crown imbalance or thin crown; minor structural imbalance; or stunted growth compared to adjacent trees.

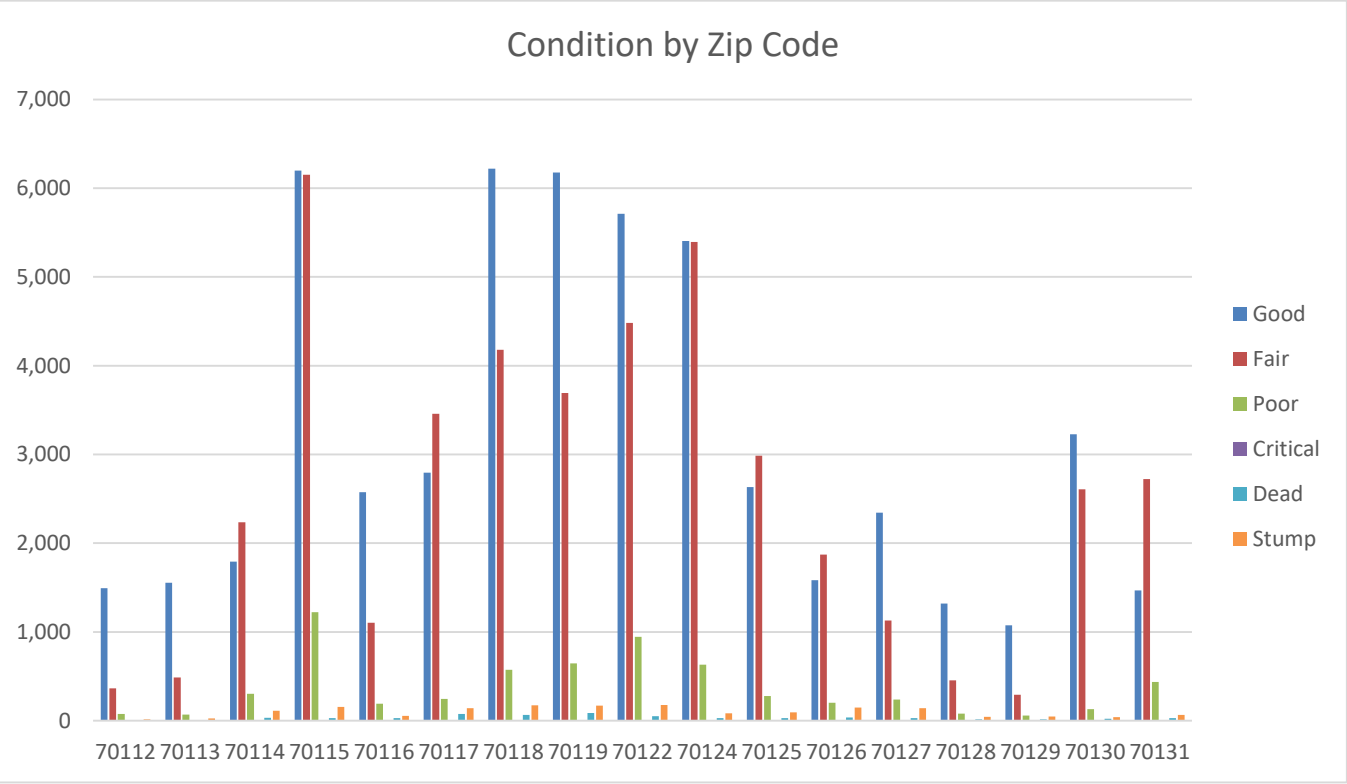
Poor – The tree appears healthy but may have structural defects. This classification also includes healthy trees that have unbalanced structures or have been topped. Trees in this category may also have severe mechanical damage, decay, severe crown dieback or poor vigor/failure to thrive.

Critical – The tree is in a physical state that requires immediate attention. Generally, these trees are recommended for a Priority One Removal.

Dead – Trees in advanced states of decline are not included. This category refers only to dead trees.



Zip Code	Condition						Total
	Good	Fair	Poor	Critical	Dead	Stump	
70112	1,493	365	77	0	6	15	**1,956**
70113	1,556	486	69	0	5	26	**2,142**
70114	1,792	2,235	302	1	33	113	**4,476**
70115	6,200	6,152	1,222	0	29	154	**13,757**
70116	2,576	1,105	190	0	29	56	**3,956**
70117	2,794	3,460	245	0	75	142	**6,716**
70118	6,220	4,180	574	0	65	175	**11,214**
70119	6,179	3,692	645	0	86	170	**10,772**
70122	5,711	4,482	947	0	52	177	**11,369**
70124	5,407	5,395	630	1	29	83	**11,545**
70125	2,631	2,985	279	4	28	95	**6,022**
70126	1,585	1,871	202	0	36	149	**3,843**
70127	2,344	1,129	237	1	29	141	**3,881**
70128	1,319	456	80	0	14	45	**1,914**
70129	1,075	294	57	0	16	47	**1,489**
70130	3,226	2,609	131	0	22	42	**6,030**
70131	1,469	2,724	438	5	29	66	**4,731**
Total	**53,577**	**43,620**	**6,325**	**12**	**583**	**1,696**	**105,813**



Recommended Maintenance

Recommended Maintenance	Tree Count	%
Priority 1 Prune	746	0.7%
Priority 1 Removal	277	0.3%
Priority 2 Prune	5,044	4.8%
Priority 2 Removal	1,888	1.8%
Large Routine Prune	39,794	37.6%
Small Routine Prune	41,218	39.0%
Training Prune	15,131	14.3%
Stump Removal	1,715	1.6%
Total	**105,813**	

Priority 1 Prune - Trees that require priority one pruning are recommended for trimming to remove hazardous deadwood, hangers, or broken branches. These trees have broken or hanging limbs, hazardous deadwood, and dead, dying, or diseased limbs or leaders greater than four inches in diameter.

Priority 1 Removal - Trees designated for removal have defects that cannot be cost- effectively or practically treated. The majority of the trees in this category will have a large percentage of dead crown and pose an elevated level of risk for failure. Any hazards that could be seen as potential dangers to persons or property and seen as potential liabilities would be in this category. Large dead and dying trees that are high liability risks are included in this category. These trees are the first ones that should be removed.

Priority 2 Prune - These trees have dead, dying, diseased, or weakened branches between two and four inches in diameter and are potential safety hazards.

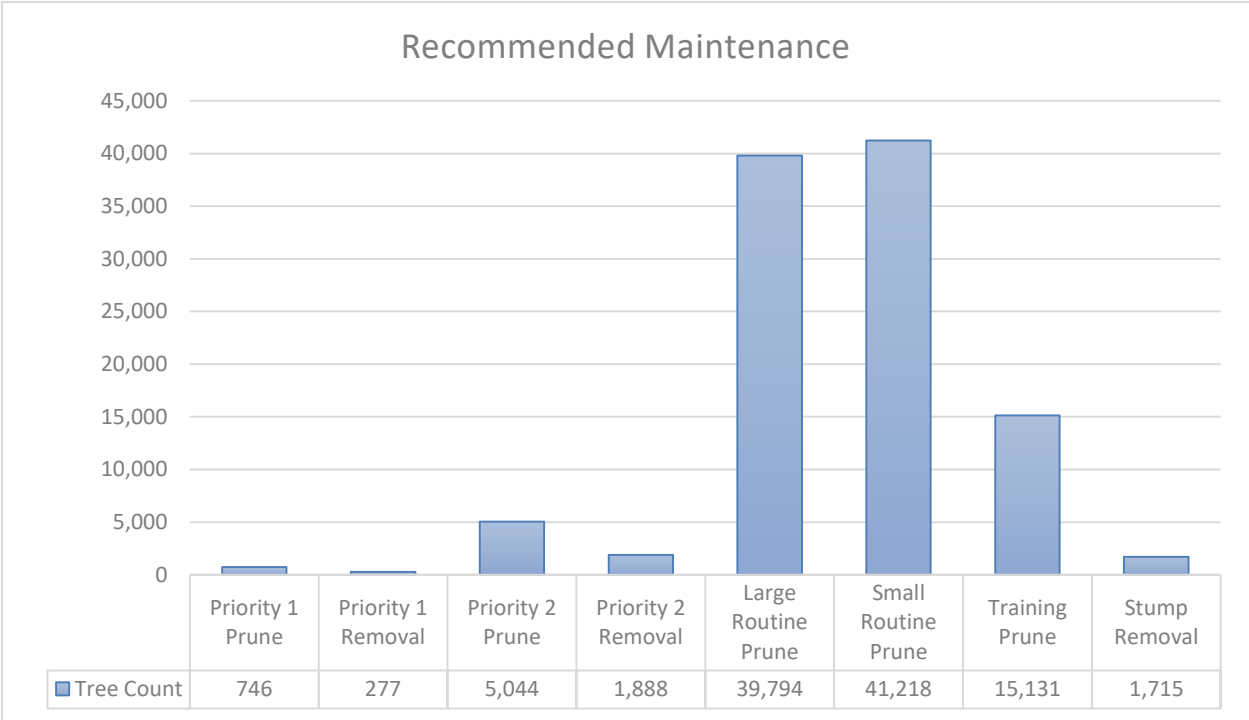
Priority 2 Removal - Trees that should be removed but do not pose a liability as great as the first priority will be identified here. This category would need attention as soon as "Priority One" trees are removed.

Large Tree Routine Prune - These trees require routine horticultural pruning to correct structural problems or growth patterns, which would eventually obstruct traffic or interfere with utility wires or buildings. Trees in this category are large enough to require bucket truck access or manual climbing.

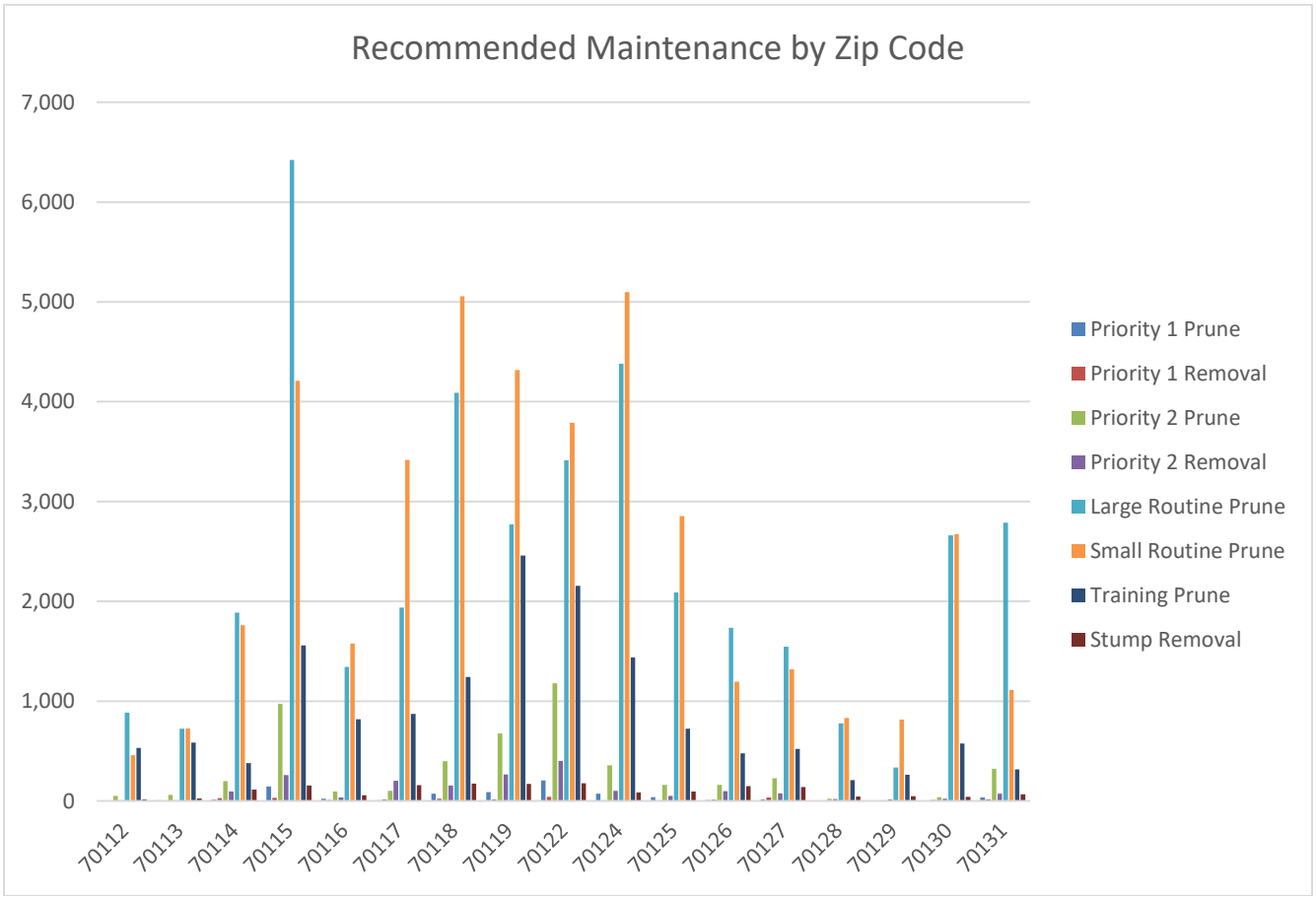
Small Tree Routine Prune - These trees require routine horticultural pruning to correct structural problems or growth patterns, which would eventually obstruct traffic or interfere with utility wires or buildings. These trees are small growing, mature trees that can be evaluated and pruned from the ground.

Training Prune - Young, large-growing trees that are still small must be pruned to correct or eliminate weak, interfering, or objectionable branches in order to minimize future maintenance requirements. These trees, up to 20 feet in height, can be worked with a pole-pruner by a person standing on the ground.

Stump Removal - This category indicates a stump that should be removed.



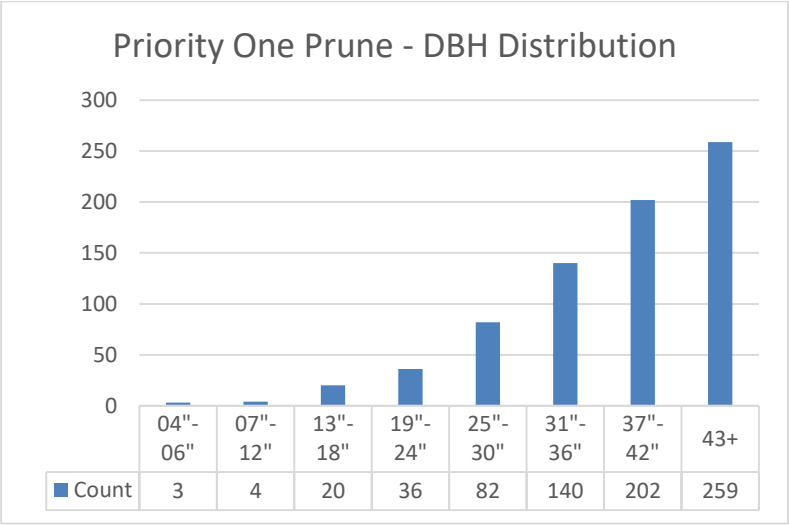
Zip Code	Recommended Maintenace								Total
	Priority 1 Prune	Priority 1 Removal	Priority 2 Prune	Priority 2 Removal	Large Routine Prune	Small Routine Prune	Training Prune	Stump Removal	
70112	4	1	52	8	884	460	532	15	**1,956**
70113	7	5	61	6	725	727	585	26	**2,142**
70114	12	30	199	94	1,886	1,761	381	113	**4,476**
70115	145	33	975	259	6,422	4,211	1,558	154	**13,757**
70116	22	9	96	34	1,343	1,576	820	56	**3,956**
70117	7	18	101	202	1,939	3,418	872	159	**6,716**
70118	72	23	400	155	4,090	5,057	1,242	175	**11,214**
70119	90	18	678	267	2,773	4,317	2,459	170	**10,772**
70122	207	43	1,180	403	3,414	3,789	2,156	177	**11,369**
70124	74	8	358	103	4,381	5,098	1,438	85	**11,545**
70125	39	7	162	52	2,091	2,853	723	95	**6,022**
70126	10	12	162	98	1,737	1,196	479	149	**3,843**
70127	16	36	227	75	1,545	1,319	522	141	**3,881**
70128	1	4	22	21	779	833	209	45	**1,914**
70129	0	4	8	17	336	815	262	47	**1,489**
70130	4	9	39	22	2,662	2,675	577	42	**6,030**
70131	36	17	324	72	2,787	1,113	316	66	**4,731**
Total	**746**	**277**	**5,044**	**1,888**	**39,794**	**41,218**	**15,131**	**1,715**	**105,813**



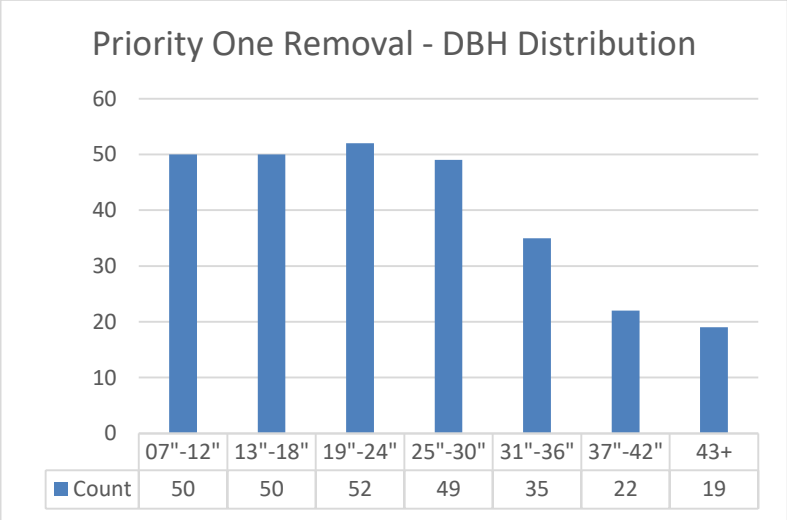
Priority Maintenance by Species and Diameter Distribution

Below are the Priority Maintenance activities by species (top 10) and diameter distribution.

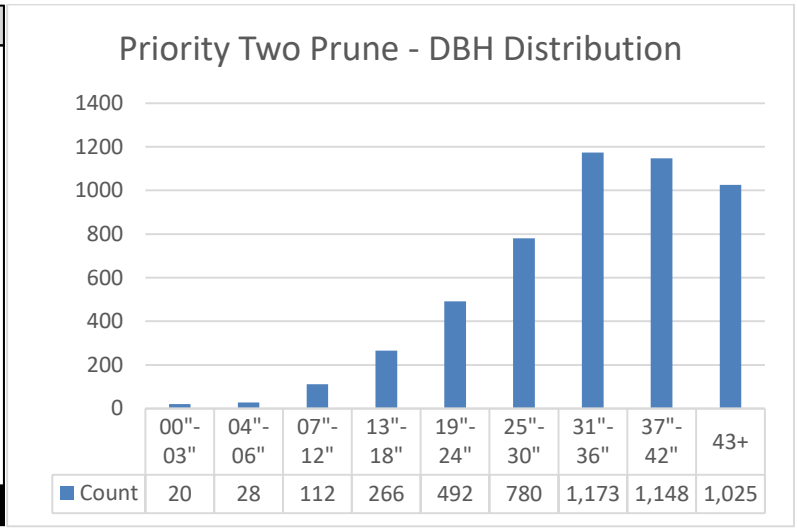
Priority One Prune	Count	%
Southern Live Oak	624	83.6%
Slash Pine	22	2.9%
Water Oak	16	2.1%
American Sycamore	15	2.0%
Bald Cypress	8	1.1%
Crape Myrtle (includir	7	0.9%
Chinese Fountain Palr	6	0.8%
Chinese Elm	6	0.8%
Pecan	5	0.7%
Mexican Ash	5	0.7%
Other	32	4.3%
Total	**746**	



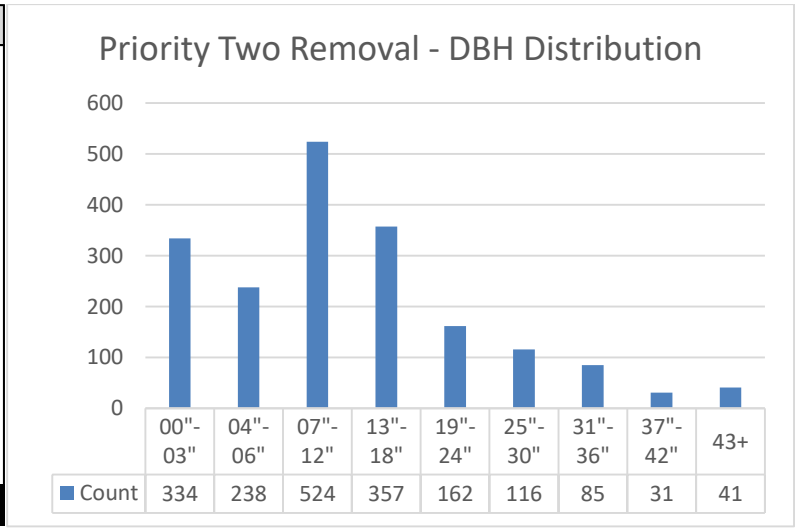
Priority One Removal	Count	%
Southern Live Oak	88	31.8%
Crape Myrtle (includir	26	9.4%
Slash Pine	18	6.5%
Queen Palm	15	5.4%
Mexican Fan Palm	14	5.1%
Chinese Elm	13	4.7%
Red Maple	9	3.2%
Sugarberry	9	3.2%
Mexican Ash	8	2.9%
Ornamental Pear	6	2.2%
Other	71	25.6%
Total	**277**	



Priority Two Prune	Count	%
Southern Live Oak	3,816	75.7%
Slash Pine	309	6.1%
Crape Myrtle (includir	137	2.7%
Water Oak	102	2.0%
American Sycamore	73	1.4%
Chinese Elm	71	1.4%
Bald Cypress	55	1.1%
Chinese Tallow Tree	52	1.0%
Mexican Ash	36	0.7%
Southern Magnolia	32	0.6%
Other	361	7.2%
Total	**5,044**	

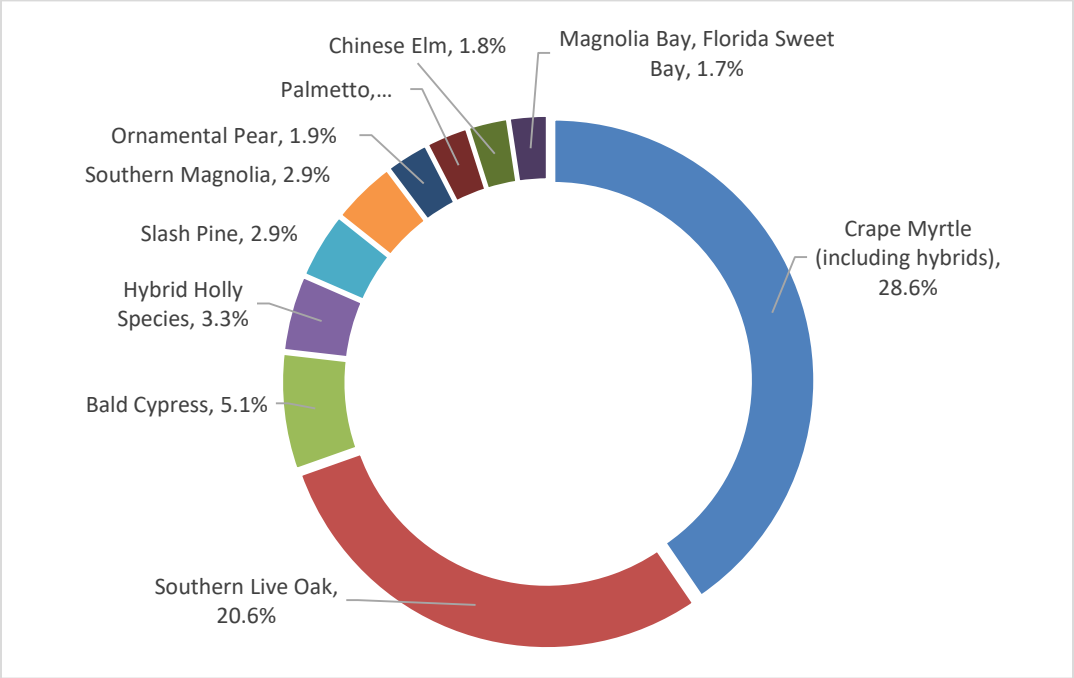


Priority Two Removal	Count	%
Crape Myrtle (includir	507	26.9%
Queen Palm	244	12.9%
Southern Live Oak	189	10.0%
Chinese Tallow Tree	155	8.2%
White Mulberry	71	3.8%
Red Maple	48	2.5%
Chinese Elm	46	2.4%
Sugarberry	42	2.2%
Palmetto	40	2.1%
Hybrid Holly Species	29	1.5%
Other	517	27.4%
Total	**1,888**	



Species and Distribution

Below are the top 10 species for the inventory.



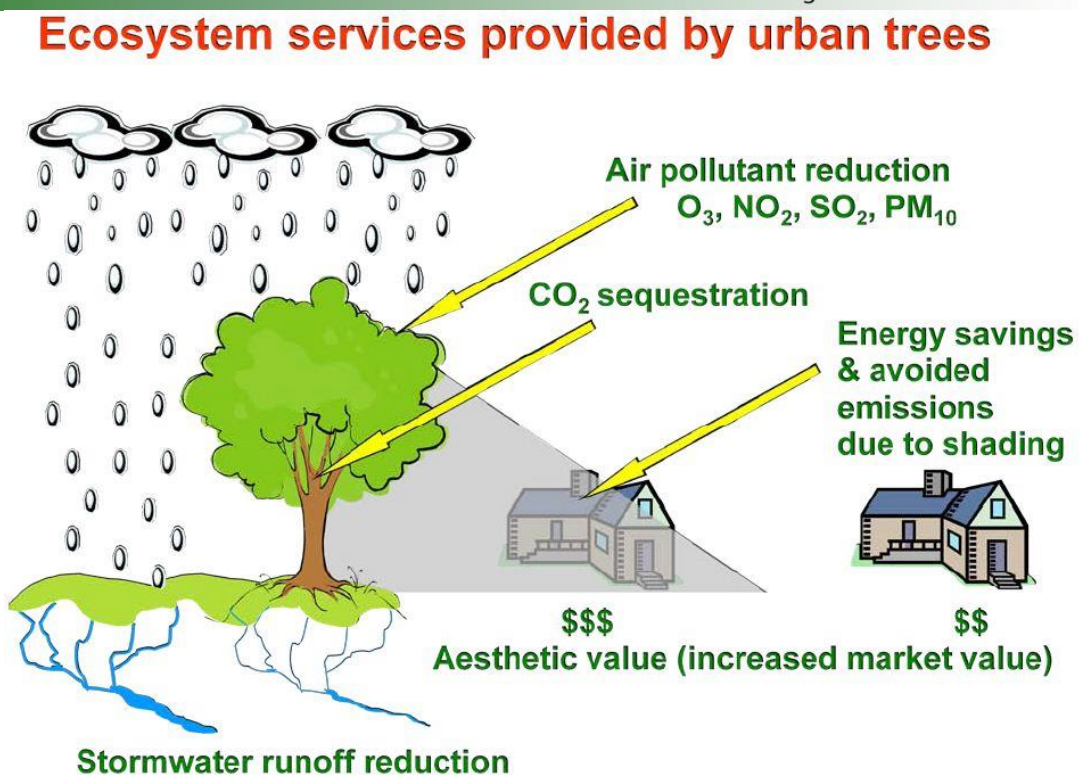
Benefits of a Healthy Urban Forest

Trees provide a host of environmental, social, and economic benefits in urban areas. When properly maintained, trees can reduce pollution, improve mental health, and lower energy costs. It is important to understand the benefits trees provide as they can offset the cost associated with tree maintenance. A properly implemented tree maintenance program will maximize tree benefits in the urban setting, allowing trees to provide benefits that meet or exceed the time and money invested in maintenance activities.

The i-Tree Streets application was used to quantify the benefits provided by New Orleans' trees. This application uses growth and benefit models designed around predominant urban trees to calculate the specific benefits that trees provide in dollar amounts. The benefits calculated by i-Tree Streets include energy conservation, air quality improvements, carbon dioxide (CO_2) reduction, stormwater control, and aesthetic/other. It creates annual benefit reports that demonstrate the value urban trees provide to the surrounding community.

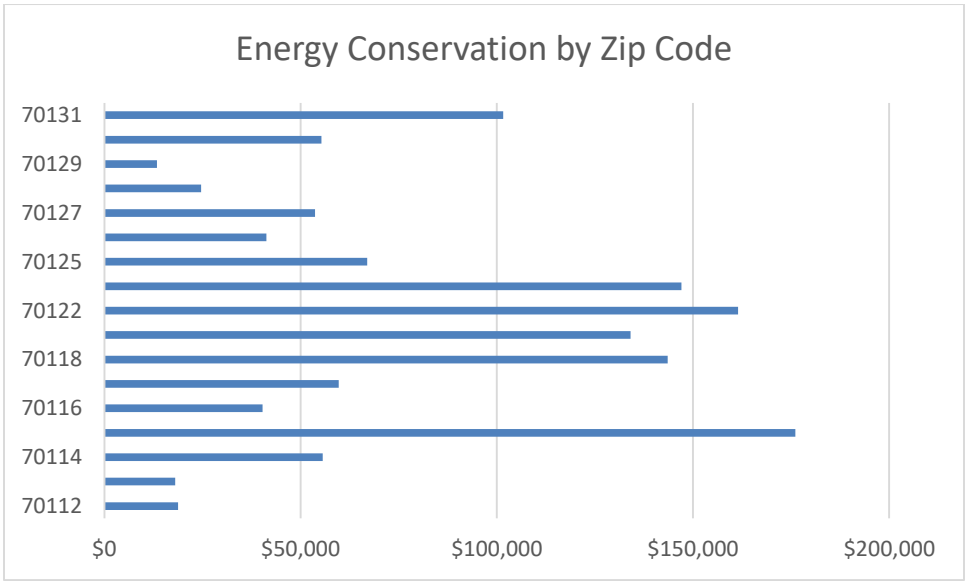
The trees in New Orleans provide a total of **$6,579,939 in annual benefits**.

The total replacement cost for all trees is **$537,345,691.**



Energy Conservation

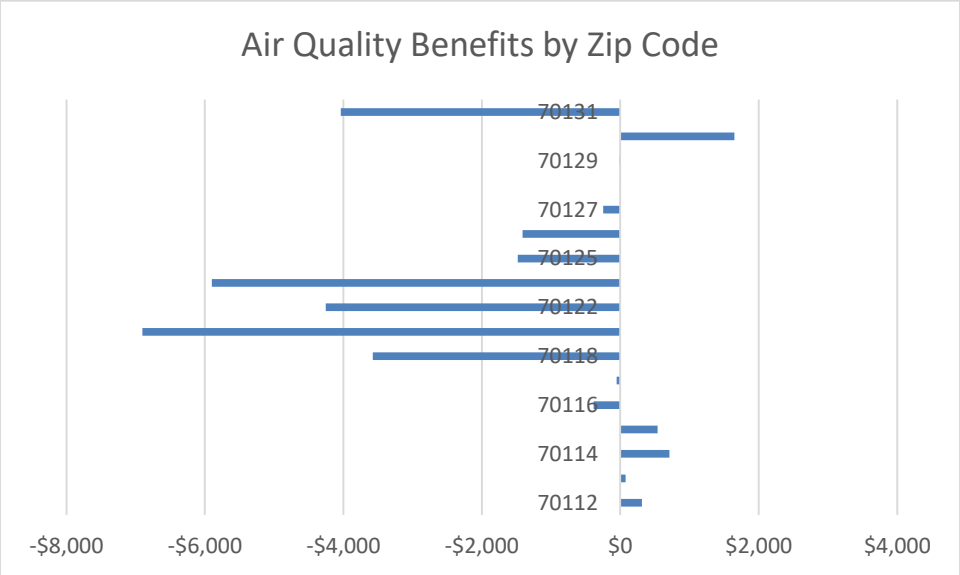
Public trees contribute to energy conservation by providing shade that reduces cooling costs in the summer and diverting wind to reduce heating costs in the winter. The savings in electricity and natural gas are converted into monetary values to illustrate the annual energy savings that trees provide. The inventoried tree population accounts for a savings of $1,312,038 in energy consumption each year.



Air Quality

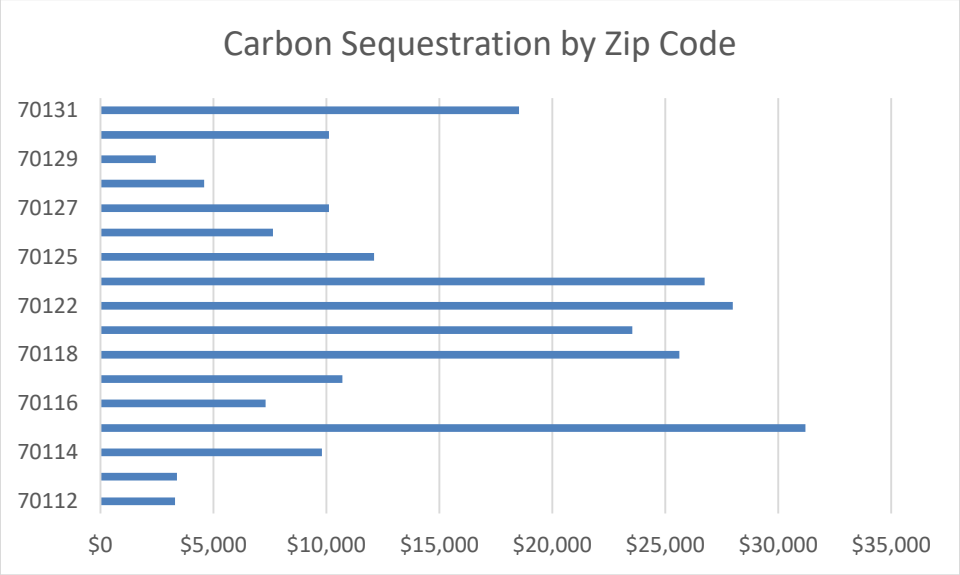
Trees typically improve air quality by removing a number of pollutants from the atmosphere, including ozone, nitrogen dioxide, and particulate matter. However, trees also release chemicals back into the atmosphere as a byproduct of photosynthesis. One of the main chemicals that trees release is a biogenic volatile organic compound commonly referred to as BVOC. Volatile organic compounds are typically associated with aerosol sprays and other non-natural products but mature shade trees emit a significant amount of BVOCs into the air. Natural VOCs are not as toxic to humans as those found in paints and pesticides but once in the atmosphere, they react with other airborne chemicals to form air pollution. Trees of large stature with corresponding large leaf masses (live oak for example) produce the most BVOC's. This accounts for the negative dollar amount for the air quality benefits in New Orleans. However, live oaks produce a host of other benefits that vastly outweigh the negative impact on air quality. For example, the benefits associated with stormwater runoff, aesthetic value, and carbon sequestration make up for, and exceed, the negative value associated with air quality. The estimated value of pollutants removed by the inventoried tree population each year is -$24,977. An example of the impact of BVOCs on the total benefits of air quality can be seen below.

Species	Total Deposition ($)	Total Avoided ($)	BVOC Emissions (lb)	BVOC Emissions ($)	Total (lb)	Total ($)	Avg. $/tree
Common crapemyrtle	1,076.92	3,188.00	0.00	0.00	3,734.85	4,264.92	0.54
Live oak	16,198.27	27,828.64	- 43,956.32	- 65,055.35	- 4,457.14	- 21,028.44	- 3.05
Chinese elm	263.77	756.40	0.00	0.00	894.18	1,020.17	1.95



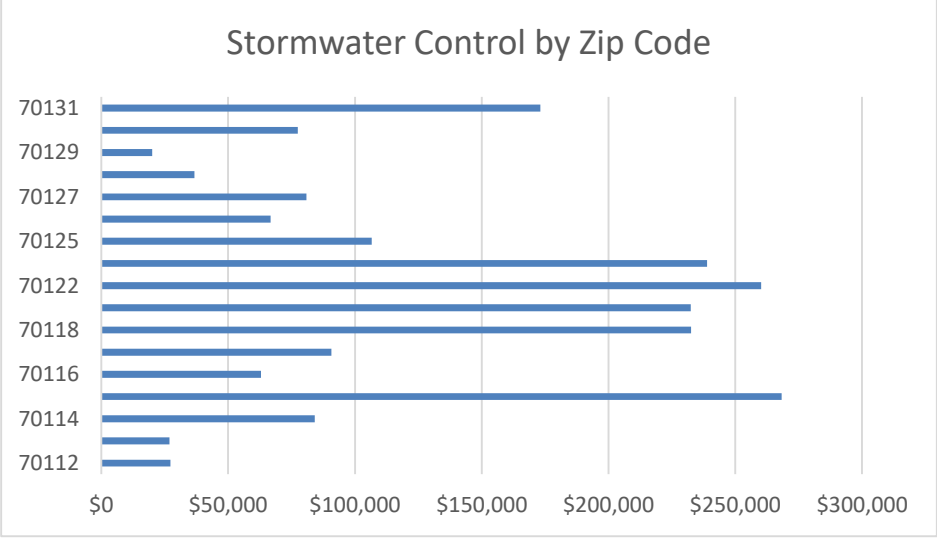
Carbon Dioxide Sequestration

It is well known that trees absorb carbon dioxide and release oxygen into the atmosphere as a product of photosynthesis. Carbon absorbed during this process is ultimately stored in the wood of trees. The amount of carbon sequestered by the inventoried tree population is valued at $235,176 annually.



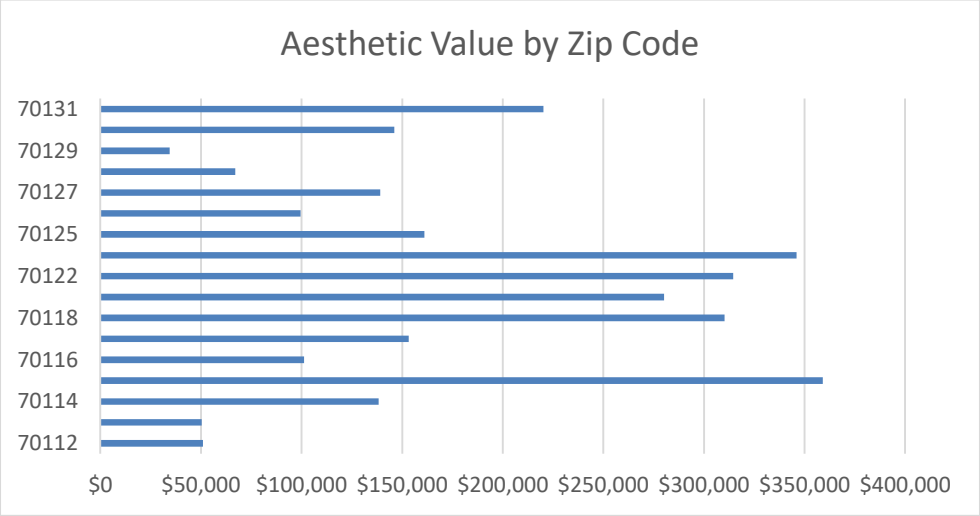
Stormwater Control

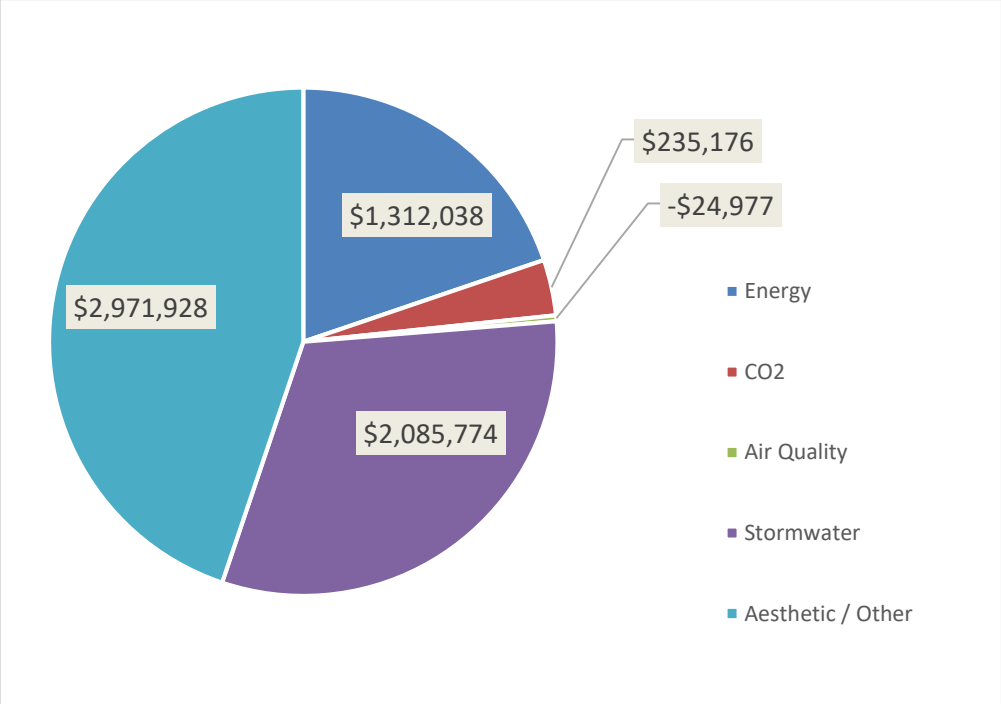
Trees reduce the costs associated with diverting stormwater by intercepting rainfall before it hits the ground and enters the storm runoff system. This greatly reduces the strain placed on public stormwater runoff systems and can represent a significant monetary savings by reducing the amount of infrastructure needed to divert stormwater throughout the city. The estimated savings for the City in the management of stormwater runoff is $2,085,774 annually.



Aesthetic/Other

Trees provide many social and economic benefits that are classified as aesthetic/other in the i-Tree Streets application. The major economic benefit in this category is increased property values. Trees contribute to higher property values when compared to similar properties that do not have trees. The major social benefits provided by trees are lower crime rates, improved mental health, greater time spent in businesses with tree lined streets, and higher productivity in the workplace when a view of nature is available. The inventoried trees contribute $2,971,928 annually in aesthetic/other benefits.

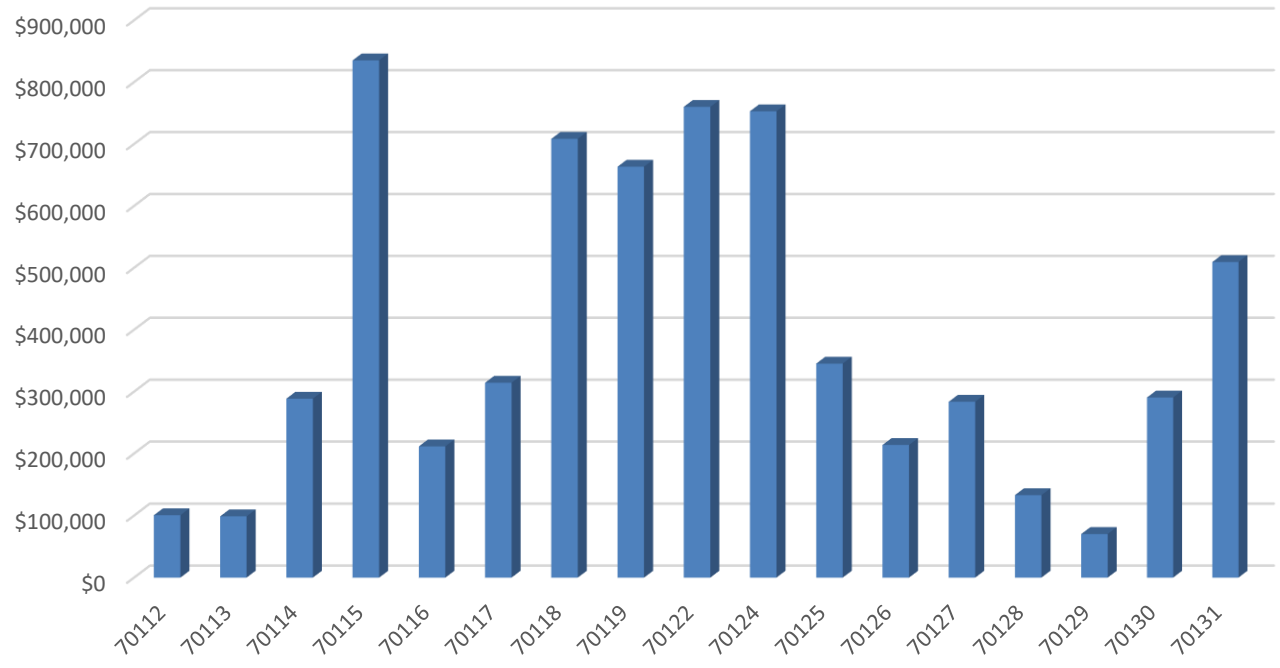




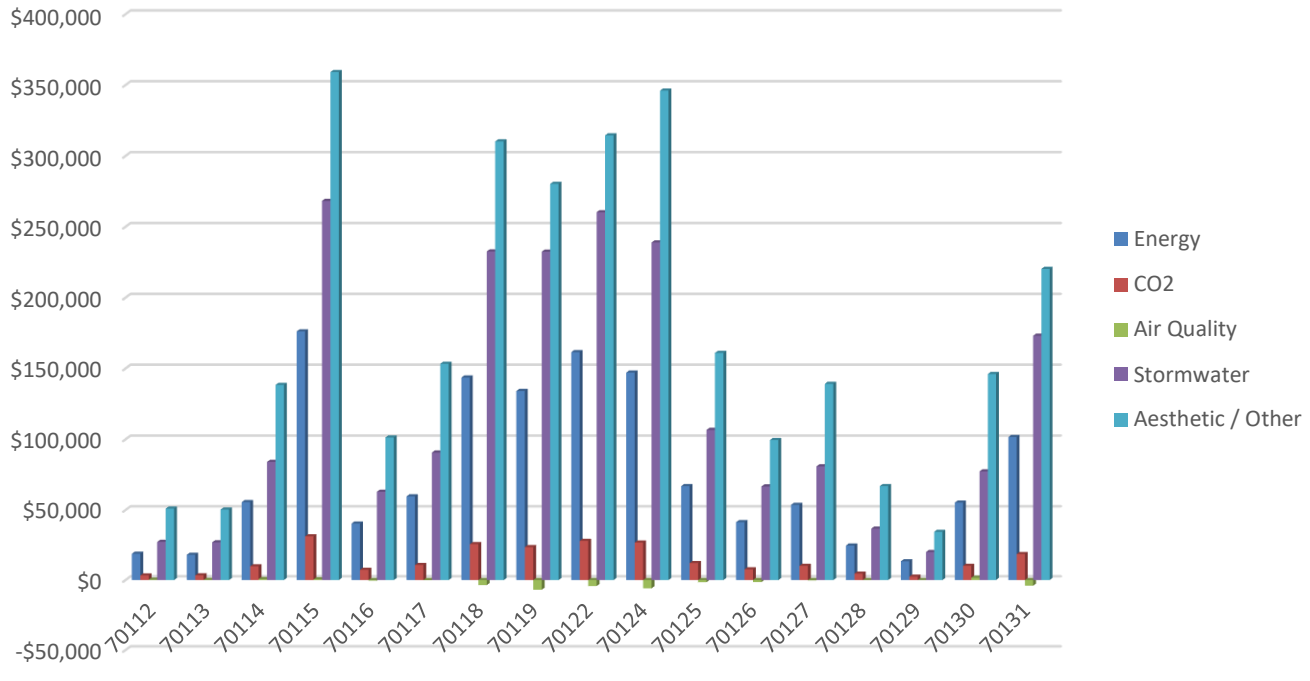
Annual Benefits by Zip Code

	Benefits											
	Energy		CO2		Air Quality		Stormwater		Aesthetic / Other		**Total**	
Zip Code	($)	(%)	($)	(%)	($)	(%)	($)	(%)	($)	(%)	**($)**	**(%)**
70112	$18,804	1.4%	$3,303	1.4%	$311	-1.2%	$27,246	1.3%	$51,004	1.7%	**$100,668**	**1.5%**
70113	$18,054	1.4%	$3,385	1.4%	$78	-0.3%	$26,896	1.3%	$50,349	1.7%	**$98,762**	**1.5%**
70114	$55,634	4.2%	$9,807	4.2%	$708	-2.8%	$84,092	4.0%	$138,371	4.7%	**$288,612**	**4.4%**
70115	$176,144	13.4%	$31,198	13.3%	$537	-2.1%	$268,221	12.9%	$359,132	12.1%	**$835,232**	**12.7%**
70116	$40,339	3.1%	$7,312	3.1%	-$388	1.6%	$62,975	3.0%	$101,310	3.4%	**$211,548**	**3.2%**
70117	$59,737	4.6%	$10,709	4.6%	-$52	0.2%	$90,650	4.3%	$153,286	5.2%	**$314,330**	**4.8%**
70118	$143,588	10.9%	$25,624	10.9%	-$3,574	14.3%	$232,582	11.2%	$310,227	10.4%	**$708,447**	**10.8%**
70119	$134,111	10.2%	$23,536	10.0%	-$6,902	27.6%	$232,389	11.1%	$280,265	9.4%	**$663,399**	**10.1%**
70122	$161,544	12.3%	$27,989	11.9%	-$4,253	17.0%	$260,236	12.5%	$314,496	10.6%	**$760,013**	**11.6%**
70124	$147,086	11.2%	$26,742	11.4%	-$5,897	23.6%	$238,923	11.5%	$346,083	11.6%	**$752,937**	**11.4%**
70125	$66,995	5.1%	$12,119	5.2%	-$1,481	5.9%	$106,655	5.1%	$161,000	5.4%	**$345,287**	**5.2%**
70126	$41,315	3.1%	$7,641	3.2%	-$1,411	5.6%	$66,759	3.2%	$99,508	3.3%	**$213,811**	**3.2%**
70127	$53,707	4.1%	$10,122	4.3%	-$249	1.0%	$80,921	3.9%	$139,157	4.7%	**$283,658**	**4.3%**
70128	$24,649	1.9%	$4,599	2.0%	-$7	0.0%	$36,721	1.8%	$66,971	2.3%	**$132,933**	**2.0%**
70129	$13,433	1.0%	$2,451	1.0%	-$10	0.0%	$19,983	1.0%	$34,423	1.2%	**$70,280**	**1.1%**
70130	$55,287	4.2%	$10,110	4.3%	$1,649	-6.6%	$77,421	3.7%	$146,082	4.9%	**$290,550**	**4.4%**
70131	$101,610	7.7%	$18,530	7.9%	-$4,036	16.2%	$173,104	8.3%	$220,263	7.4%	**$509,471**	**7.7%**
Total	**$1,312,038**		**$235,176**		**-$24,977**		**$2,085,774**		**$2,971,928**		**$6,579,939**	

Total Annual Benefits by Zip Code



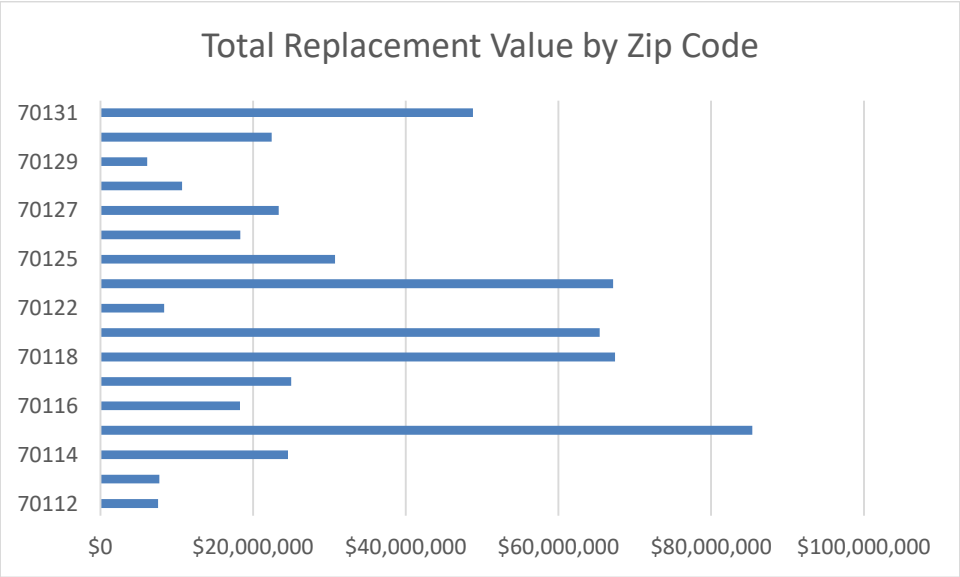
Benefity Type by Zip Code



Total Replacement Value

In addition to Environmental Benefits, the City can consider the Total Replacement Value for its urban forest. Total Replacement Value is the amount of money it would take to completely replace the existing urban forest with trees of the same size. While this is a scenario that will likely never happen, it gives the City a specific dollar value of its trees in their current state. Replacement value differs from Environmental Benefits in that it shows how much the trees are worth instead of the dollar values that they provide in benefits. For example, a mature sugar maple could provide $2,100 in environmental benefits by reducing stormwater runoff, improving air quality, etc. but the total cost of replacing an 18" DBH sugar maple would be $24,270. According to i-Tree Streets, the total replacement cost for the trees in New Orleans is $537,345,691. The table below shows the breakdown of Replacement Value by Diameter Class.

	DBH (inches)									
Zip Code	00"-03"	04"-06"	07"-12"	13"-18"	19"-24"	25"-30"	31"-36"	37"-42"	43+	**Total**
70112	$18,147	$338,450	$871,870	$1,636,480	$797,162	$960,763	$1,289,065	$991,702	$648,299	**$7,551,938**
70113	$49,641	$434,920	$777,872	$1,057,097	$949,288	$869,292	$1,103,613	$1,394,003	$1,083,790	**$7,719,518**
70114	$84,275	$411,982	$1,644,347	$2,114,190	$4,110,510	$4,033,097	$4,525,942	$3,749,015	$3,894,136	**$24,567,495**
70115	$123,551	$1,147,758	$6,725,935	$11,581,451	$12,033,962	$12,351,219	$14,522,731	$14,434,275	$12,486,484	**$85,407,366**
70116	$106,502	$643,247	$1,753,121	$1,789,448	$2,040,056	$3,205,375	$3,467,953	$3,120,363	$2,149,409	**$18,275,476**
70117	$205,242	$934,400	$2,663,470	$2,358,383	$2,497,324	$3,681,375	$5,156,494	$4,216,245	$3,260,005	**$24,972,938**
70118	$203,889	$1,517,839	$4,849,013	$5,820,028	$7,654,471	$9,207,531	$12,706,045	$13,013,962	$12,445,593	**$67,418,370**
70119	$274,874	$1,334,243	$3,485,043	$4,084,635	$4,454,674	$6,044,233	$12,045,741	$16,426,936	$17,239,866	**$65,390,245**
70122	$5,119	$58,988	$118,479	$170,569	$1,282,927	$2,209,794	$2,237,208	$1,529,364	$730,230	**$8,342,678**
70124	$213,746	$1,320,736	$4,968,417	$6,759,121	$6,751,829	$9,044,093	$10,609,115	$11,170,656	$16,317,581	**$67,155,293**
70125	$114,342	$726,690	$2,878,784	$2,489,164	$2,776,487	$3,969,074	$6,101,012	$6,605,165	$5,065,693	**$30,726,410**
70126	$86,739	$342,991	$641,533	$971,847	$2,095,688	$3,829,636	$4,960,986	$3,776,021	$1,637,998	**$18,343,438**
70127	$62,570	$440,979	$1,048,392	$2,181,278	$4,276,293	$6,716,173	$5,347,209	$2,087,773	$1,214,124	**$23,374,790**
70128	$34,330	$202,732	$641,580	$1,207,318	$2,133,887	$2,595,603	$2,321,099	$996,515	$586,418	**$10,719,483**
70129	$45,908	$199,341	$524,633	$767,110	$677,324	$1,068,911	$1,075,727	$1,143,450	$631,454	**$6,133,859**
70130	$68,593	$986,540	$3,749,903	$4,165,154	$2,342,893	$2,037,460	$3,097,608	$3,117,929	$2,889,231	**$22,455,312**
70131	$43,059	$217,259	$1,152,563	$2,378,655	$5,842,313	$9,197,296	$11,842,200	$10,880,818	$7,236,921	**$48,791,084**
Total	**$1,740,528**	**$11,259,094**	**$38,494,956**	**$51,531,928**	**$62,717,091**	**$81,020,926**	**$102,409,747**	**$98,654,192**	**$89,517,230**	**$537,345,691**



Below is a Species Frequency report for the entire inventory.

Botanical Name	Common Name	Count	%
Abies fraseri	Fraser Fir	2	0.0%
Acacia cognata	River Wattle	1	0.0%
Acacia dealbata	Silver Wattle	4	0.0%
Acacia farnesiana	Sweet Acacia	5	0.0%
Acacia species	Acacia Species	1	0.0%
Acca sellowiana	Pineapple Guava	10	0.0%
Acer buergeranum	Trident Maple	25	0.0%
Acer ginnala	Amur Maple	2	0.0%
Acer negundo	Box Elder	19	0.0%
Acer palmatum	Japanese Maple	167	0.2%
Acer pseudoplatanus	Sycamore Maple	1	0.0%
Acer rubrum	Red Maple	1379	1.3%
Acer saccharinum	Silver Maple	13	0.0%
Acer saccharum	Sugar Maple	8	0.0%
Acer saccharum subsp. barbatum	Southern Sugar Maple	4	0.0%
Acer truncatum	Purple Blow Maple; Shantung Maple	1	0.0%
Acer x freemanii	Freeman Maple	5	0.0%
Acer x freemanii 'Jeffersred'	Autumn Blaze Maple	1	0.0%
Aesculus pavia	Red Buckeye	1	0.0%
Afrocarpus gracilior	Fern Pine	8	0.0%
Ailanthus altissima	Tree of Heaven	6	0.0%
Albizia julibrissin	Mimosa; Silk Tree	30	0.0%
Alnus rhombifolia	White Alder	1	0.0%
Angophora hispida	Dwarf Apple	1	0.0%
Angophora melanoxylon	Coolabah Apple	2	0.0%
Araucaria columnaris	Star Pine	22	0.0%
Arbutus unedo	Strawberry Tree	1	0.0%
Archontophoenix alexandrae	Alexandra Palm	3	0.0%
Asimina triloba	Pawpaw	1	0.0%
Averrhoa carambola	Starfruit	1	0.0%
Azadirachta indica	Neem	1	0.0%
Baccharis halimifolia	Sea Myrtle	13	0.0%
Bambusa species	Bamboo Species	11	0.0%
Bauhinia variegata	Purple Orchid Tree	54	0.1%
Bauhinia variegata 'Candida'	White Orchid Tree	2	0.0%
Betula nigra	River Birch	319	0.3%
Brugmansia species	Angel's Trumpet	7	0.0%

Brugmansia versicolor	Angel's Trumpet	1	0.0%
Butia capitata	Pindo Palm	72	0.1%
Buxus sempervirens	Boxwood	2	0.0%
Cactus species	Cactus species	2	0.0%
Caesalpinia pulcherrima	Barbados Pride	11	0.0%
Callistemon citrinus	Lemon Bottlebrush	112	0.1%
Callistemon viminalis	Weeping Bottlebrush	30	0.0%
Callistemon x 'Red Cluster'	Red Cluster Bottlebrush	68	0.1%
Camellia japonica	Camellia	6	0.0%
Camellia reticulata	Camellia	16	0.0%
Camptotheca acuminata	Chinese Xi Shu	2	0.0%
Caragana arborescens	Siberian Pea Tree	1	0.0%
Carica papaya	Papaya	29	0.0%
Carpinus betulus	European Hornbeam	4	0.0%
Carpinus caroliniana	American Hornbeam	46	0.0%
Carya illinoinensis	Pecan	350	0.3%
Castanea mollissima	Chinese Chestnut	1	0.0%
Catalpa bignonioides	Eastern/Southern Catalpa	38	0.0%
Catalpa speciosa	Western/Northern Catalpa	10	0.0%
Ceiba speciosa	Floss Silk Tree	1	0.0%
Celtis laevigata	Sugarberry	486	0.5%
Celtis occidentalis	Common Hackberry	1	0.0%
Celtis sinensis	Chinese Hackberry	1	0.0%
Cercis canadensis	Eastern Redbud	248	0.2%
Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	15	0.0%
Cestrum nocturnum	Night-Blooming Jessamine	4	0.0%
Chamaerops humilis	Mediterranean Fan Palm	162	0.2%
Chionanthus retusus	Chinese Fringe Tree	300	0.3%
Chionanthus virginicus	American Fringe Tree	105	0.1%
Cinnamomum camphora	Camphor	193	0.2%
Citrus aurantifolia	Lime	13	0.0%
Citrus limon	Lemon	53	0.1%
Citrus maxima	Pumelo	1	0.0%
Citrus reticulata	Tangerine	3	0.0%
Citrus sinensis	Orange	124	0.1%
Citrus species	Citrus Species	487	0.5%
Citrus X paradisi	Grapefruit	9	0.0%
Cladrastis kentukea	American Yellowwood	2	0.0%
Cocculus laurifolius	Snailseed	4	0.0%
Cornus amomum	Silky Dogwood	1	0.0%
Cornus drummondii	Rough-leafed Dogwood	6	0.0%

Cornus florida	Eastern Dogwood	23	0.0%
Cornus kousa	Kousa Dogwood	9	0.0%
Cornus species	Dogwood Species	1	0.0%
Corymbia citriodora	Lemon-Scented Gum	1	0.0%
Crataegus crus-galli	Cockspur Thorn	35	0.0%
Crataegus crus-galli f. inermis	Thornless Hawthorn	15	0.0%
Crataegus species	Hawthorn Species	5	0.0%
Cupressocyparis leylandii	Leyland Cypress	73	0.1%
Cupressus sempervirens	Italian Cypress	43	0.0%
Cycas revoluta	Sago Palm	379	0.4%
Cytisus canariensis	Canary Island Broom	1	0.0%
Dimocarpus longan	Longan	2	0.0%
Dioon spinulosum	Giant Dioon	2	0.0%
Diospyros virginiana	American Persimmon	41	0.0%
Duranta erecta	Sky Flower	1	0.0%
Dypsis decaryi	Triangle Palm	3	0.0%
Ehretia acuminata	Chinese Ehretia	1	0.0%
Elaeocarpus decipiens	Japanese Blueberry Tree	173	0.2%
Eriobotrya japonica	Edible Loquat	311	0.3%
Erythrina crista-galli	Cockspur Coral Tree	13	0.0%
Erythrina species	Coral Tree Species	1	0.0%
Eucalyptus cinerea	Ash Gum	5	0.0%
Eucalyptus cordata	Silver Gum	2	0.0%
Eucalyptus species	Eucalyptus Species	3	0.0%
Euonymus japonicus	Japanese Euonymus	16	0.0%
Ficus carica	Edible Fig	181	0.2%
Ficus elastica	Rubber Plant	4	0.0%
Firmiana simplex	Chinese Parasol Tree	64	0.1%
Fortunella margarita	Nagami Kumquat	14	0.0%
Fraxinus americana	White Ash	48	0.0%
Fraxinus berlandieriana	Mexican Ash	509	0.5%
Fraxinus caroliniana	Pop Ash	2	0.0%
Fraxinus pennsylvanica	Green Ash	153	0.1%
Fraxinus profunda	Pumpkin Ash	72	0.1%
Fraxinus velutina	Arizona Ash	30	0.0%
Ginkgo biloba	Maidenhair Tree	222	0.2%
Gleditsia triacanthos	Honey Locust	7	0.0%
Gleditsia triacanthos f. inermis	Thornless Honey Locust	4	0.0%
Grevillea robusta	Silk Oak	1	0.0%
Halesia carolina	Carolina Silverbell	3	0.0%
Halesia diptera	Two-wing Sivlerbell	13	0.0%

Handroanthus impetiginosus	Pink Trumpet Tree	4	0.0%
Handroanthus umbellatus	Yellow Trumpet Tree	3	0.0%
Hibiscus mutabilis 'Flore Pleno'	Double Confederate Rose	1	0.0%
Hibiscus syriacus	Rose-of-Sharon	5	0.0%
Ilex aquifolium	English Holly	7	0.0%
Ilex cassine	Dahoon Holly	513	0.5%
Ilex 'Conaf'	Oak Leaf Holly	1	0.0%
Ilex cornuta	Chinese Holly	451	0.4%
Ilex decidua	Possum Haw	7	0.0%
Ilex 'Nellie R. Stevens'	Nellie Stevens Holly	38	0.0%
Ilex opaca	American Holly	113	0.1%
Ilex species	Holly Species	25	0.0%
Ilex vomitoria	Yaupon	258	0.2%
Ilex vomitoria 'Pendula'	Weeping Yaupon	34	0.0%
Ilex x attenuata	Hybrid Holly Species	3529	3.3%
Ilex x attenuata 'Eagleston'	Eagleston Holly	535	0.5%
Ilex x attenuata 'East Palatka'	East Palatka Holly	14	0.0%
Ilex x attenuata 'Foster'	Foster Holly	26	0.0%
Ilex x attenuata 'Savannah'	Savannah Holly	82	0.1%
Jacaranda mimosifolia	Jacaranda	2	0.0%
Jatropha integerrima	Peregrina	1	0.0%
Juglans nigra	Black Walnut	1	0.0%
Juglans regia	English Walnut	2	0.0%
Juniperus chinensis	Chinese Juniper	64	0.1%
Juniperus silicicola	Southern Red Cedar	125	0.1%
Juniperus species	Juniper Species	2	0.0%
Juniperus virginiana	Eastern Red Cedar	226	0.2%
Koelreuteria bipinnata	Chinese Flame Tree	29	0.0%
Koelreuteria elegans subsp. Formosana	Formosa Flamegold	243	0.2%
Koelreuteria paniculata	Goldenrain Tree	3	0.0%
Lagerstroemia indica (and hybrids)	Crape Myrtle (including hybrids)	30244	28.6%
Lagerstroemia speciosa	Queen Crape Myrtle	2	0.0%
Laurus nobilis	Sweet Bay	3	0.0%
Leucaena leucocephala	Leadball Tree	2	0.0%
Ligustrum japonicum	Japanese Privet	639	0.6%
Ligustrum lucidum	Glossy Privet	95	0.1%
Ligustrum sinense	Chinese Privet	32	0.0%
Ligustrum species	Privet Species	1	0.0%
Ligustrum vulgare	Common Privet	10	0.0%
Liquidambar formosana	Chinese Sweet Gum	1	0.0%
Liquidambar styraciflua	American Sweet Gum	248	0.2%

Liquidambar styraciflua 'Slender Silhouette'	Slender Silhouette Liquidambar	5	0.0%
Liriodendron tulipifera	Tulip Tree	41	0.0%
Livistona chinensis	Chinese Fountain Palm	337	0.3%
Livistona decora	Weeping Fountain Palm	10	0.0%
Livistona nitida	Fountain Palm	7	0.0%
Loropetalum chinense	Fringe Flower	64	0.1%
Maackia amurensis	Manchurian Maackia	1	0.0%
Macadamia integrifolia	Smooth-Shell Macadamia	2	0.0%
Maclura pomifera	Osage Orange	1	0.0%
Magnolia acuminata	Cucumber Magnolia	6	0.0%
Magnolia doltsopa	Michelia	2	0.0%
Magnolia figo	Banana Shrub	4	0.0%
Magnolia grandiflora	Southern Magnolia	3022	2.9%
Magnolia grandiflora 'Little Gem'	Little Gem Magnolia	449	0.4%
Magnolia liliiflora	Lily Magnolia	1	0.0%
Magnolia liliiflora 'Galaxy'	Galaxy Magnolia	1	0.0%
Magnolia species	Magnolia Species	31	0.0%
Magnolia stellata	Star Magnolia	26	0.0%
Magnolia virginiana	Magnolia Bay, Florida Sweet Bay	1795	1.7%
Magnolia x soulangeana	Saucer Magnolia	1287	1.2%
Malus domestica	Edible Apple Species	14	0.0%
Malus floribunda	Crabapple Species	34	0.0%
Malus fusca	Pacific Crabapple	1	0.0%
Mangifera indica	Mango	4	0.0%
Manihot esculenta	Cassava	1	0.0%
Melia azedarach	Chinaberry	143	0.1%
Metasequoia glyptostroboides	Dawn Redwood	4	0.0%
Mimosa species	Mimosa Species	11	0.0%
Mixed	Mixed	6	0.0%
Mixed Brush	Mixed Brush	1	0.0%
Moringa oleifera	Horseradish Tree	2	0.0%
Morus alba	White Mulberry	408	0.4%
Morus alba 'Pendula'	Weeping White Mulberry	1	0.0%
Morus rubra	Red Mulberry	12	0.0%
Murraya koenigii	Curry Leaf	1	0.0%
Musa species	Banana	58	0.1%
Myrica californica	Pacific Wax Myrtle	5	0.0%
Myrica cerifera	Eastern Wax Myrtle	39	0.0%
Nerium oleander	Oleander	506	0.5%
Nyssa aquatica	Water Tupelo	10	0.0%
Nyssa sylvatica	Sour Gum	20	0.0%

Olea europaea	Olive	81	0.1%
Olneya tesota	Desert Ironwood	1	0.0%
Osmanthus americanus	American Devilwood	1	0.0%
Osmanthus fragrans	Sweet Olive	28	0.0%
Osmanthus fragrans var. aurantiacus	Sweet Olive	523	0.5%
Palm species	Palm Species	5	0.0%
Parkinsonia aculeata	Jerusalem Thorn	13	0.0%
Paulownia fortunei	Princess Tree	10	0.0%
Persea americana	Avocado	24	0.0%
Persea borbonia	Redbay	5	0.0%
Phoenix canariensis	Canary Island Date Palm	473	0.4%
Phoenix dactylifera	Date Palm	535	0.5%
Phoenix dactylifera 'Medjool'	Medjool Date Palm	6	0.0%
Phoenix reclinata	Senegal Date Palm	2	0.0%
Phoenix roebelenii	Pigmy Date Palm	75	0.1%
Phoenix rupicola	Cliff Date Palm	2	0.0%
Phoenix sylvestris	Silver Date Palm	118	0.1%
Photinia fraseri	Fraser Photinia	270	0.3%
Photinia serrulata	Chinese Photinia	4	0.0%
Pinus brutia	Calabrian Pine	1	0.0%
Pinus coulteri	Coulter Pine	1	0.0%
Pinus echinata	Shortleaf Pine	45	0.0%
Pinus elliottii	Slash Pine	3098	2.9%
Pinus glabra	Spruce Pine	100	0.1%
Pinus halepensis	Aleppo Pine	1	0.0%
Pinus palustris	Long-leaf Pine	1	0.0%
Pinus pinea	Italian Stone Pine	2	0.0%
Pinus taeda	Loblolly Pine	218	0.2%
Pinus thunbergii	Japanese Black Pine	31	0.0%
Pistacia chinensis	Chinese Pistache	1282	1.2%
Pittosporum tobira	Tobira, Mock Orange	27	0.0%
Platanus occidentalis	American Sycamore	621	0.6%
Platycladus orientalis	Oriental Arborvitae	201	0.2%
Plumeria rubra	Plumeria	1	0.0%
Podocarpus henkelii	Long-Leafed Yellowwood	3	0.0%
Podocarpus macrophyllus	Yew Pine	180	0.2%
Poncirus trifoliata	Trifoliate Orange	11	0.0%
Populus deltoides	Cottonwood	10	0.0%
Prunus americana	American Plum	1	0.0%
Prunus armeniaca	Apricot	2	0.0%
Prunus caroliniana	Carolina Laurel Cherry	187	0.2%

Prunus cerasifera	Purple-Leafed Plum	21	0.0%
Prunus cerasifera (green form)	Cherry Plum	1	0.0%
Prunus domestica	Plum	12	0.0%
Prunus laurocerasus	English Laurel	2	0.0%
Prunus persica	Peach	45	0.0%
Prunus persica var. nucipersica	Nectarine	2	0.0%
Prunus serotina	Eastern Black Cherry	13	0.0%
Prunus serrulata	Japanese Flowering Cherry	27	0.0%
Prunus serrulata 'Kwanzan'	Kwanzan Flowering Cherry	8	0.0%
Prunus species	Stone Fruit Species	156	0.1%
Prunus x yedoensis	Yoshino Cherry	2	0.0%
Psidium guajava	Guava	11	0.0%
Punica granatum	Pomegranate	24	0.0%
Pyracantha coccinea	Firethorn	1	0.0%
Pyrus calleryana	Ornamental Pear	2024	1.9%
Pyrus calleryana 'Bradford'	Bradford Pear	14	0.0%
Pyrus calleryana 'Cleveland Select'	Cleveland Select Pear	5	0.0%
Pyrus communis	Edible Pear	45	0.0%
Quercus acutissima	Sawtooth Oak	47	0.0%
Quercus agrifolia	Coast Live Oak	3	0.0%
Quercus alba	White Oak	51	0.0%
Quercus bicolor	Swamp White Oak	17	0.0%
Quercus falcata	Southern Red Oak	236	0.2%
Quercus imbricaria	Shingle Oak	2	0.0%
Quercus laurifolia	Laurel Oak	77	0.1%
Quercus leucotrichophora	Himalayan Oak	1	0.0%
Quercus lyrata	Overcup Oak	118	0.1%
Quercus marilandica	Blackjack Oak	1	0.0%
Quercus michauxii	Swamp Chestnut Oak	40	0.0%
Quercus myrtifolia	Myrtle Oak	1	0.0%
Quercus nigra	Water Oak	948	0.9%
Quercus pagoda	Cherrybark Oak	98	0.1%
Quercus palustris	Pin Oak	14	0.0%
Quercus phellos	Willow Oak	554	0.5%
Quercus rugosa	Netleaf Oak	2	0.0%
Quercus shumardii	Shumard Oak	803	0.8%
Quercus species	Oak Species	1	0.0%
Quercus stellata	Post Oak	6	0.0%
Quercus texana	Texas Red Oak; Nuttall Oak	694	0.7%
Quercus velutina	Black Oak	10	0.0%
Quercus virginiana	Southern Live Oak	21775	20.6%

Quercus x comptoniae	Compton Oak	2	0.0%
Quercus x 'Warei Long'	Regal Prince Oak	6	0.0%
Ravenea rivularis	Majesty Palm	11	0.0%
Ravenea species	Majesty Palm Species	3	0.0%
Rhamnus cathartica	Common Buckthorn	3	0.0%
Rhaphiolepis indica	Indian Hawthorne	8	0.0%
Rhaphiolepis 'Majestic Beauty'	Majestic Beauty Indian Hawthorne	28	0.0%
Rhododendron 'Southern Indica'	Azalea Hybrids	1	0.0%
Rhopalostylis baueri	Norfolk Island Palm	8	0.0%
Rhus lancea	African Sumac	3	0.0%
Rhus ovata	Sugar Bush	1	0.0%
Ricinus communis	Castor Bean	2	0.0%
Robinia pseudoacacia	Black Locust	1	0.0%
Sabal bermudana	Bermuda Palmetto	2	0.0%
Sabal mexicana	Mexican Palmetto	1	0.0%
Sabal minor	Dwarf Palmetto	2	0.0%
Sabal palmetto	Palmetto	1979	1.9%
Salix babylonica	Weeping Willow	74	0.1%
Salix lucida	Pacific Black Willow	1	0.0%
Salix matsudana 'Tortuosa'	Corkscrew Willow	7	0.0%
Salix nigra	Black Willow	99	0.1%
Salix species	Willow Species	1	0.0%
Sambucus canadensis	Eastern Elderberry	4	0.0%
Sambucus species	Elderberry Species	49	0.0%
Sassafras albidum	Sassafras	2	0.0%
Senna bicapsularis	Winter Senna	15	0.0%
Senna surattensis	Glaucous Senna	1	0.0%
Sereona repens	Saw Palmetto	1	0.0%
Sesbania punicea	Scarlet Wisteria Tree	4	0.0%
Sophora secundiflora	Texas Mountain Laurel	1	0.0%
Stump	Stump	1714	1.6%
Styphnolobium japonicum	Japanese Pagoda Tree	1	0.0%
Styrax japonicus	Japanese Snowbell Tree	1	0.0%
Syagrus romanzoffiana	Queen Palm	1690	1.6%
Syzygium australe	Brush Cherry	3	0.0%
Syzygium australe 'Compacta'	Compact Brush Cherry	1	0.0%
Tamarix ramosissima	Salt Cedar	1	0.0%
Taxodium ascendens	Pond Cypress	264	0.2%
Taxodium distichum	Bald Cypress	5409	5.1%
Tecoma stans	Yellow Elder	1	0.0%
Ternstroemia japonica	Japanese Ternstroemia	8	0.0%

Thuja occidentalis	American Arborvitae	32	0.0%
Thuja plicata	Western Red Cedar	8	0.0%
Trachycarpus fortunei	Windmill Palm	65	0.1%
Triadica sebifera	Chinese Tallow Tree	1201	1.1%
Ulmus alata	Winged Elm	32	0.0%
Ulmus americana	American Elm	94	0.1%
Ulmus glabra 'Camperdown'	Camperdown Elm	2	0.0%
Ulmus parvifolia	Chinese Elm	1877	1.8%
Ulmus pumila	Siberian Elm	2	0.0%
Ulmus rubra	Slippery Elm	38	0.0%
Ulmus x species	Hybrid Elm	106	0.1%
Unidentifiable Tree	Unidentifiable Tree	15	0.0%
Vernicia fordii	Tung Oil Tree	7	0.0%
Viburnum japonicum	Japanese Viburnum	4	0.0%
Viburnum obovatum	Walter Viburnum	4	0.0%
Viburnum odoratissimum var. awabuki	Sweet Viburnum	14	0.0%
Viburnum opulus	European Cranberry Bush	1	0.0%
Viburnum plicatum	Japanese Snowball	3	0.0%
Viburnum species	Viburnum Species	9	0.0%
Vitex agnus-castus	Chaste Tree	164	0.2%
Vitex trifolia	Simpleleaf Chaste Tree	1	0.0%
Washingtonia filifera	California Fan Palm	1	0.0%
Washingtonia filifera X robusta	Filibusta Palm	3	0.0%
Washingtonia robusta	Mexican Fan Palm	669	0.6%
Wisteria sinensis	Chinese Wisteria	3	0.0%
Yucca gloriosa	Spanish Dagger	293	0.3%
Zelkova serrata	Sawleaf Zelkova	3	0.0%
Ziziphus jujuba	Chinese Jujube	5	0.0%